

DRAFT
Analysis of Brownfields Cleanup Alternatives

2020 River Road
Wheatfield, NY

Prepared by



March 2026

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- A. Site Location Map
- B. Summary of Public Comments and Responses



1 INTRODUCTION & BACKGROUND

The 4.2-acre site is located at 2020 River Road (hereafter referred to as “the Site”) and is owned by the Town of Wheatfield. The Site was formerly occupied by a residential dwelling but has been undeveloped since at least 1972. Since that time, the property was used for extensive filling and dumping.

Brownfield Redevelopment Solutions, Inc. (BRS), has prepared this Analysis of Brownfields Cleanup Alternatives (ABCA) in support of the EPA grant funding. The purpose of the ABCA is to:

- Identify reasonable brownfields cleanup alternatives considered for addressing the contamination identified at the site;
- Analyze the various factors influencing the selection of a preferred cleanup method, including effectiveness, implementability, costs, and sustainability;
- Select the preferred cleanup method, based on the analyses performed; and
- Provide community outreach and solicit public participation and comment on the remedial selection process prior to the final decision.

The County, in coordination with the Township of Wheatfield, will promote and facilitate community involvement with the environmental cleanup and site redevelopment project with the activities itemized below.

- Perform targeted outreach to notify communities of the availability of this ABCA.
- Provide an opportunity for members of the public to comment on the ABCA in a public meeting. Additional details regarding the public notification process are presented in a *Community Participation Plan* for the site.
- Prepare written responses to the comments received and document any changes made to the cleanup plans and to the ABCA resulting from the comments.

A Brownfields Cleanup Decision Memo will be prepared at the end of the public comment process, which will describe the cleanup options selected for the site. The ABCA and the Decision Memo will be included with the Administrative Record. The Administrative Record repository is available at the Niagara County Department of Economic Development, 6311 Inducon Corporate Drive, Sanborn, New York, 14132.

The expected outcome of the project is excavation of 3,336 tons of selected areas of soil and subsequent capping. Thereafter, institutional controls will be used to prevent future exposure to contaminants. This work will facilitate redevelopment of the Site as public waterfront access while preserving the wetlands and the majority of the established onsite vegetation.



1.1 Site Description and Previous Uses

The Site is comprised of four parcels (SBL Nos. 174.07-3-6, 174.07-3-7, 174.07-3-8, and 174.07-3-9). The parcels form a narrow “L-shape”, extending between River Road and the Niagara River. The total area is approximately 4.2 acres.

The property was historically developed with a residential dwelling but has been undeveloped since at least 1972. Since that time, the property was used for extensive filling and dumping. Materials imported to the site reportedly included drums and smaller containers, and industrial wastes like slag, ash, coal, and foundry sand.

1.2 Surrounding Land Use

The Site is located within a residential and commercial area. The site is bordered to the north by River Road, with an automotive repair facility beyond. To the east is the former Brzezinski Landfill. To the south is the Niagara River. To the west are residential parcels and the former 102nd Street Landfill site (formerly on the National Priorities List (NPL) and delisted in 2004). The former Love Canal NPL site is located approximately 2,000 ft to the northwest.

1.3 Project Goal (Reuse Plan)

The Town of Wheatfield is the current owner of the Site. It intends to redevelop the site to provide the community with riverfront access and a public park area. The remedial goal is to mitigate threats to public health and the environment presented by the contamination for the intended use.

1.4 Summary of Environmental Conditions

Numerous Phase I and Phase II Environmental Site Assessment (“ESA”) have been conducted at the Site to identify and assess recognized environmental conditions (“RECs”). This includes a 2004 Modified Phase I/II ESA by Empire Geo-Services, Inc., a 2006 Phase I ESA by Conestoga-Rovers & Associates, a 2013 Phase II ESA by LaBella Associates, P.C., and a 2020 Phase II ESA by Leader Consulting Services.

The Phase I ESA identified two RECs:

- Historical use of the property for filling; and
- Surrounding properties.

These RECs were subsequently investigated in the Phase II ESAs. The work included conducting subsurface geophysical surveys; installing soil borings, test pits, and a monitoring well; and collecting and analyzing soil and groundwater samples.

Test pits identified fill material across the site extending up to approximately 8 feet deep. Native grey silty clay was encountered beneath the fill.



In general, the sample results showed highly variable contaminant concentrations, both vertically and horizontally, across the site. This is consistent with years of fill placement, versus a point discharge where contaminant gradients are common. It's also possible that the heterogeneous contaminant distribution has resulted in areas of contaminated soil have not been identified.

Three surface soil samples exceeded the Commercial soil cleanup objectives (SCOs) for various metals. Two subsurface soil samples, collected between 4 – 5 feet below grade, exceeded the Commercial SCOs for arsenic.

A limited groundwater investigation was conducted and reportedly identified lead above the NYSDEC Drinking Water Maximum Contaminant Level (MCL).

1.5 Physical Setting

The site is relatively flat at an elevation of approximately 575 feet above mean sea level. The site is fully vegetated, with most of the site consisting of upland forest. Approximately 0.29 acres in the central-western portion of the site is a palustrine scrub-shrub wetland. The wetland is fully surrounded by uplands with no observable hydrological connection.

1.6 Exposure Pathways

For contaminants from a site to pose a human health or environmental risk, one or more completed exposure pathways must link the contaminant to a receptor (human or ecological). A completed exposure pathway consists of four elements:

- A source and mechanism of substance release;
- A transport medium;
- A point of potential human or ecological contact with the substance (“exposure point”); and
- An “exposure route”, such as dermal contact, ingestion, etc.

Preliminary evaluation indicates the following potentially completed exposure pathways related to the site in its current condition (i.e., pre-remediation):

1. **Human contact with surface soil.** Soil might be handled, inhaled or ingested by occasional on-site construction workers or trespassers.
2. **Contaminant impacts to ecological receptors.** On-site wetlands can be impacted by site contaminants.
3. **Contaminant migration to surface water.** Impacted surface soil can migrate to the Niagara River via runoff from the property.
4. **Direct human contact with, or ingestion of, groundwater.** There are no current or uses of onsite groundwater, however future use could expose users to contaminants.



2 APPLICABLE LAWS AND CLEANUP STANDARDS

The applicable statutes, regulations and guidance of the State of New York and NYSDEC will be referenced to provide the Standards, Criteria and Guidance (SCGs) for the project. NYSDEC regulations for site remediation are codified at 6 NYCRR § 375 et. seq.

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The standards, criteria, and guidance that will or will likely be directly applicable to the Site's remediation include those listed below:

- NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, May 2010
- NYSDEC CP-51 Soil Cleanup Guidance Policy, October 2010

All contaminated material will be properly excavated and disposed of off-site, and the remaining native soil will be analyzed to ensure compliance with the NYSDEC CP-51 SCLs. Backfill materials will meet NYSDEC requirements for backfill at remediation sites.

The effective implementation of the NYSDEC regulations will be managed by a qualified environmental professional, to be retained by the Township of Wheatfield.

For soil disturbing activities, a Community Air Monitoring Plan (CAMP) will be developed in accordance with New York State Department of Health (NYSDOH).

3 EVALUATION OF CLEANUP ALTERNATIVES

This section identifies various reasonable remediation alternatives that were considered in response to the environmental contamination issues at the site. The following potential remedial alternatives were considered:

- Alternative No. 1) No Action
- Alternative No. 2) Site-Wide Engineering and Institutional Controls
- Alternative No. 3) Selective Capping and Institutional Controls

The following evaluation criteria were considered in comparing the remedial alternatives.

- A. Effectiveness in providing compliance with NYSDEC regulations and increased protectiveness to public health and the environment;
- B. Implementability of the considered alternative;
- C. Cost of the considered alternative; and
- D. Sustainability and resilience considerations.

3.1 Alternative No. 1 - No Action

If no environmental cleanup remedy were performed at this site:

- The site would remain out of compliance with NYSDEC's regulations; and



- The intended reuse of the site for providing access to the riverfront would not be possible. Currently, the property is vacant and underutilized due to the encountered contamination.

3.1.1 Effectiveness

The “no action” alternative is not effective in that it does not provide for compliance with NYSDEC regulations and it fails to provide for the beneficial reuse of the Site.

3.1.2 Sustainability and Resilience

The “no action” approach would not meet project remediation goals because the contamination would remain in place, untreated, and without a barrier. As such, the “no action” approach would present a continuing risk to the public. Based on this, evaluation of the approach with regards to other sustainability criteria is not relevant.

3.1.3 Implementability

The “no action” alternative is technically feasible, although the presence of untreated soil would not comply NYSDEC regulations.

3.1.4 Operation and Maintenance

Because there is no remedy implemented, there would also be no operation and maintenance requirements at the site.

3.1.5 Institutional Controls

As no action is taking place under this alternative, no institutional controls are proposed.

3.1.6 Cost

There would be no costs associated with this alternative.

3.2 Alternative No. 2 – Site-Wide Engineering and Institutional Controls

Under this alternative, the remedial action will include a site-wide cap of clean soil with a visual barrier demarcating the impacted underlying fill. Thereafter, an Environmental Easement will be recorded, preventing future residential use and restricting groundwater use at the site. This combination of remedies will prevent future users from exposure to site contaminants. Further details of the remediation plan are as follows:

- Develop a Community Air Monitoring Plan (CAMP) and Soil/Fill Management Plan.
- Obtain necessary permits from US Army Corps of Engineers and NYSDEC related to working in and around the wetland area.
- Excavate 2-feet of surface soil from the entire site, with an estimated weight of 22,670 tons.



- Excavated soils will be sampled and characterized in accordance with the requirements of the designated disposal facility.
- Install a visible barrier and backfill with clean soil with appropriate specifications for the setting. Compact and grade the site.
- Restore wetland and upland areas with appropriate vegetation.
- Ensure ongoing protectiveness of the engineering controls by developing and implementing an Operation and Maintenance Plan.
- The Institutional Controls will consist of an Environmental Easement that would prevent future residential use and restrict the use of groundwater at the site.

Upon completion of this alternative, the property will be suitable for active or passive recreational use, meeting the project goal. The entire site will be safe for site visitors to use for recreational activities.

3.2.1 Effectiveness

This alternative would effectively achieve project remediation goals by:

- Disrupting the pathway of the most heavily contaminated soils to human, ecological, or surface water receptors;
- Protecting future users via institutional controls; and
- Achieving the applicable remediation standards and technical and administrative compliance with the NYSDEC regulations.

3.2.2 Sustainability and Resilience

This criterion evaluates the degree to which the remedial alternative may reduce greenhouse gas discharges, reduce energy use, employ alternative energy sources, reduce volume of wastewater to be disposed, reduce volume of materials to be taken to a landfill, and/or allow for the reuse or recycling of materials during cleanup is considered, where applicable.

The site-wide engineering control included in this alternative compares unfavorably to Alternative 3 (described in Section 3.3) with regard to sustainability metrics. The approach would result in increased energy use, greenhouse gas emissions, and landfill disposal volume.

This approach is comparable to Alternatives 1 and 3 in resilience metrics, such as the continuing protectiveness of the remedy in light of reasonably foreseeable changing climate conditions.

3.2.3 Implementability

Cap placement is a widely used and accepted practice for remediating impacted contaminated soils. Institutional controls are a common method of protecting future users of the site from exposure to remaining contaminated media.



The Township and/or its consultant will retain a contractor that is licensed, qualified, and OSHA-certified to perform work on hazardous materials sites.

3.2.4 Operation and Maintenance

Operation and Maintenance of the installed soil cap should include the following:

- Routine inspections;
- Vegetation maintenance (grass mowing and weed control); and
- Written O&M Plan that includes a discussion including but, not limited to; soil cover maintenance, reporting, maintenance agreement, a utility plan should future utilities or building be proposed at the Site, and fence or notification sign maintenance (if applicable).

3.2.5 Institutional Controls

This alternative will require an Environmental Easement that would:

- Prevent future residential use of the property; and
- Restrict the use of groundwater at the site.

3.2.6 Cost

The costs for completing remediation under this approach were estimated using the following elements and assumptions:

- 1) Retain environmental engineering firm;
- 2) Project and Grant Management tasks, including public notification;
- 3) Prepare project specifications and bid documents;
- 4) Prepare Quality Assurance and Health and Safety deliverables, a Community Air Monitoring Plan (CAMP), Soil/Fill Management Plan, and Citizen Participation Plan (if necessary).
- 5) Conduct procurement process;
- 6) Removal, testing, and disposal of approximately 22,670 tons of impacted soil;
- 7) Procurement of suitable cap materials;
- 8) Installation of engineered cap;
- 9) Site restoration, including vegetative cover;
- 10) Prepare Environmental Easement;
- 11) Prepare Final Engineering Report (FER) and other regulatory reporting requirements;

The estimated cost for this cleanup alternative is \$3,172,990.00.



3.3 Alternative No. 3 – Selective Capping and Institutional Controls

Under this alternative, the remedial action will include removing selected hotspots and capping selected areas of the site to accommodate redevelopment as waterfront access.

3.3.1 Known Soil Hot Spots

A total of five samples exceeded the commercial SCOs. Three of them (TP-15, TP-13, and TP-1) are in areas planned for future public access, as depicted on the figure in **Attachment A**. As a result, at each location, soil from a 10 ft long by 10 ft wide area will be excavated to up to 8 feet. A total of approximately 300 square feet will be excavated, with an anticipated weight of 133 tons.

3.3.2 Future Public Access Areas

With future for public waterfront access, most of the site will remain undisturbed and fully vegetated. This will allow for preservation of the wetlands and the majority of the established vegetation. Two feet of surface soil will be excavated prior to constructing future park amenities, which will serve as environmental caps:

- Walking trail. Approximately 12,618 square feet, for a total weight of 1,402 tons.
- Parking area. Approximately 10,080 square feet of soil, for a total weight of 1,120 tons.
- Picnic area. Approximately 3,588 square feet of soil, for a total weight of 390 tons.
- Rain garden and landscaped areas. Approximately 2,615 square feet of soil, for a total weight of 291 tons.

These areas total 28,901 square feet and weigh approximately 3,203 tons.

3.3.3 Remediation Details

The cap in each area will consist of a visual barrier demarcating the impacted underlying fill. Backfill will vary based on the area, but will include compacted clean fill and appropriate structural sub-base material.

Thereafter, an Environmental Easement will be recorded, preventing future residential use and restricting groundwater use at the site. This combination of remedies will prevent future users from exposure to site contaminants.

Further details of the remediation plan are as follows:

- Develop a Community Air Monitoring Plan (CAMP) and Soil/Fill Management Plan.
- Obtain necessary permits from US Army Corps of Engineers and NYSDEC related to working in and around the wetland area.



- Excavate an estimated 29,001 square feet, having an estimated weight of 3,345 tons. Excavated soils will be sampled and characterized in accordance with the requirements of the designated disposal facility.
- Install fencing and signage directing visitors to stay on trails for the protection of the established wetlands, and to prevent exposure pathways to contaminants of concern.
- Install a visible barrier and install backfill material with appropriate specifications for the future use. Compact and grade the site as appropriate.
- Ensure ongoing protectiveness of the engineering controls by developing and implementing an Operation and Maintenance Plan.
- The Institutional Controls will consist of an Environmental Easement that would prevent future residential use and restrict the use of groundwater at the site.

Upon completion of this alternative, the property will be suitable for passive recreational use, meeting the project goal. Fences and/or signs will be necessary to ensure visitors are not exposed to residual surface contaminants.

3.3.4 Effectiveness

This alternative would effectively achieve project remediation goals by:

- Disrupting the pathway of the most heavily contaminated soils to human, ecological, or surface water receptors;
- Protecting future users via institutional controls; and
- Achieving the applicable remediation standards and technical and administrative compliance with the NYSDEC regulations.

3.3.5 Sustainability and Resilience

The hot spot remediation alternative compares favorably to Alternative 2 (described in Section 3.2) with regard to sustainability metrics. The approach would result in decreased energy use, greenhouse gas emissions, and landfill disposal volume.

This approach is comparable to Alternatives 1 and 2 in resilience metrics, such as the continuing protectiveness of the remedy in light of reasonably foreseeable changing climate conditions.

3.3.6 Implementability

Excavation and capping is a widely used and accepted practice for remediating impacted contaminated soils and preventing human exposure. Institutional controls are a common method of protecting future users of the site from exposure to remaining contaminated media.



The Township and/or its consultant will retain a contractor that is licensed, qualified, and OSHA-certified to perform work on hazardous materials sites.

3.3.7 Operation and Maintenance

Operation and Maintenance of the installed soil cap should include the following:

- Routine inspections;
- Vegetation maintenance (grass mowing and weed control); and

Written O&M Plan that includes a discussion including but, not limited to; soil cover maintenance, reporting, maintenance agreement, a utility plan should future utilities or building be proposed at the Site, and fence or notification sign maintenance (if applicable).

3.3.8 Institutional Controls

This alternative will require an Environmental Easement that would:

- Prevent future active recreation or residential use of the property; and
- Restrict the use of groundwater at the site.

3.3.9 Cost

Total project costs for this alternative are estimated at \$876,156.00.

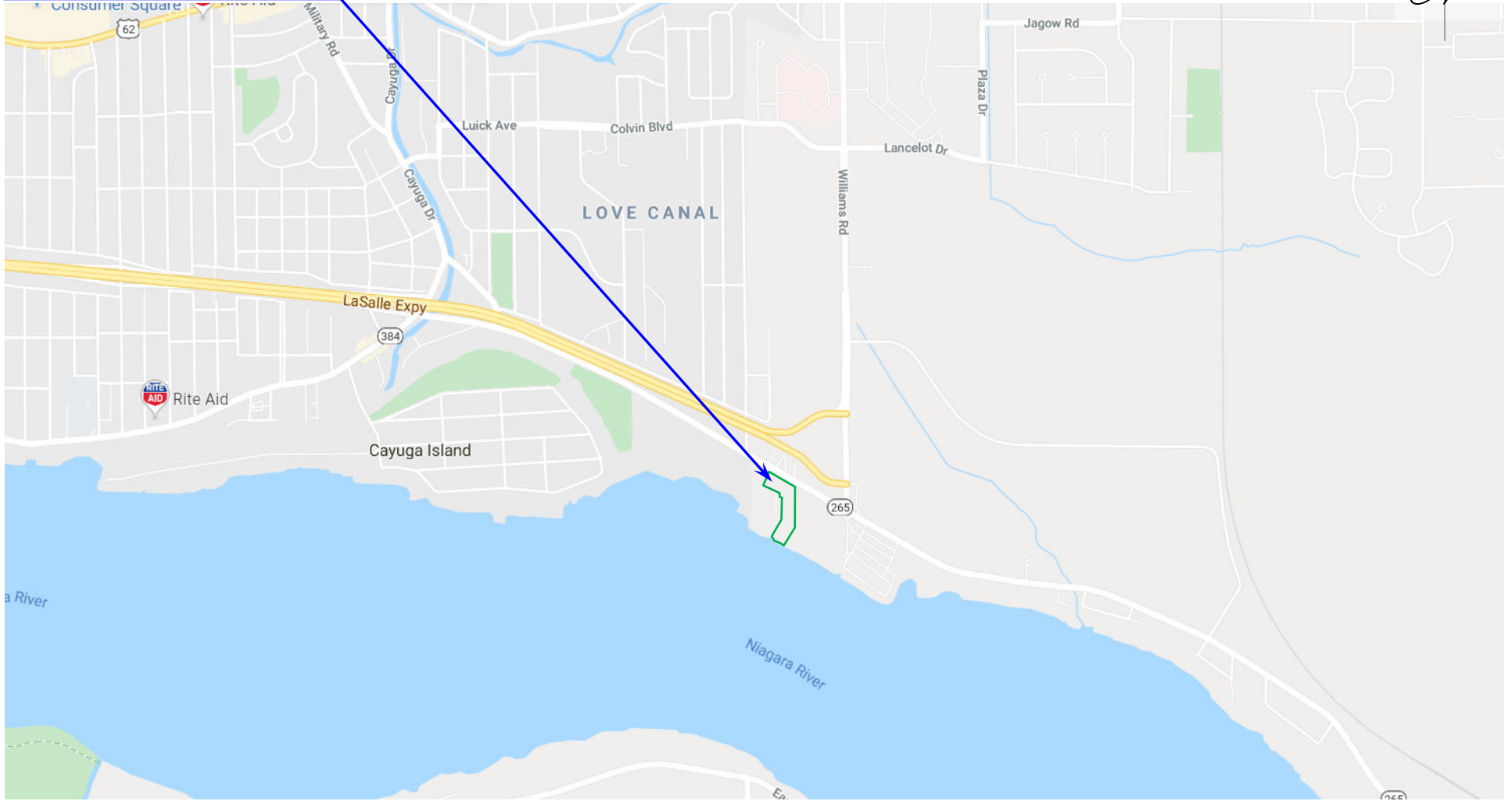
3.4 Preferred Alternative

The preferred alternative is *Alternative No. 3 – Selective Capping and Institutional Controls*. Both capping and institutional controls are proven methods, easily and quickly implementable, environmentally effective, and cost-effective. Excavation equipment is readily available. These techniques are accepted by the NYSDEC as a remedy for soil contamination.



Attachment A
Site Location Map

Approximate Location of the Site



SOURCE: Google Maps.

Title:

SITE LOCATION MAP
2020 River Road, Wheatfield, NY

Prepared For:

Niagara County, NY Department of Economic Development



Leader Consulting Services, Inc.
2813 Wehrle Drive, Suite #1
Williamsville, New York
(716) 565-0963
(716) 565-0964 (fax)

Project:

908.001

Date:

10/2019

Scale:

N.T.S.

Drawn:

HDK

Checked:

JAW

File Name:

Figure:

1

ATTACHMENT B
Summary of Public Comments and Responses
(to be populated after the public meeting)